

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at page 8 ln 18:

Figure 3A shows one embodiment of an optical array useful for testing the sensors of the present invention while Figure 3B shows a close-up of one embodiment of a 3D translator.

Please amend the paragraph beginning at page 30 ln 13:

The gold colloid-containing sensors that were prepared with either *C. vinosum*, *R. purpureus*, or *R. gelatinosa* cytochromes c' were tested. One embodiment of the optical array useful for testing is shown schematically in Figure 3A and Figure 3B). All three cytochromes c'-containing sensors were found to have linear responses up to 1mM nitric oxide (Figures 4-6). Above this concentration is a second linear region with a slope which is three times that below 1 mM, as shown in Figure 7. The steeper slope found at higher concentrations may be due to spectroscopic changes upon binding a second nitric oxide molecule per monomer, or may be caused by each cytochrome c' dimer binding more than two nitric oxide molecules. In view of their structural similarities, it is not surprising that all three cytochromes c' have comparable slopes. The *C. vinosum* (Figure 7, where squares indicate increasing nitric oxide concentration and circles indicate decreasing nitric oxide concentration) and *R. purpureus* cytochromes c' are readily reversible. The *R. gelatinosa* cytochrome c' does not respond reversibly, but the reasons for this difference have not yet been determined. The present limit of detection is approximately 20 μ M nitric oxide. While the reaction of *C. vinosum* cytochrome c' has been reported to be slow when measured in solution via absorbance, the results using the sensors of the present invention show that the sensor's response time is less than 2 seconds.